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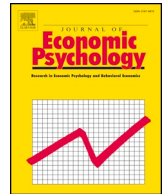
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Brief Report

The benefits of joint and separate financial management of couples

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ABSTRACT

Financial management differs across households with consequences for financial outcomes and well-being of partners in households. A large-sample study has been performed, investigating the relationship between financial management of households and the occurrence of financial problems. To our knowledge, this is the first study on this relationship. Data from both partners was collected on having joint and separate bank accounts, on financial decision making, on drivers of financial management, and on financial outcomes. Based on the data, four financial management styles were derived: syncratic/joint, male-dominant, female-dominant, and autonomous financial management. In the syncratic style, partners have a joint bank account and take most financial decisions together. In the male/female-dominant styles, one partner (husband or wife) takes the main financial decisions. In the autonomous style, both partners have their own bank accounts and make their own decisions. As a conclusion, we find that syncratic financial management and having a joint instead of a separate bank account correlates with fewer financial problems, as compared with male-dominant money management and having separate bank accounts. Deciding together as partners is beneficial for the quality of financial management and for avoiding financial problems.

1. Introduction

In many economic household decision-making studies, households are the units of measurement, ignoring intra-household dynamics, such as joint or separate financial decision making of partners. Taking households as units of measurement and analysis may be sufficient and appropriate for macro studies on the developments of aggregate household spending and saving. It may also be sufficient in studies on assessing the influence of consumer confidence, income and tax policy, economic policy, and other factors on household spending and saving in general. However, taking households as units of measurement does not provide any insights in the dynamics of decision-making processes, bargaining, power and wealth differences between partners, differences in preferences and choice, financial management, outcome satisfaction and well-being of partners in households. The type of economic and, more specifically, financial decision making and choice in households is an important determinant of the quality and effectiveness of the decisions and the occurrence of financial problems in households. It is also an important determinant of unfavorable effects such as

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conflicts and (gender) inequality of power, and favorable effects such as satisfaction and well-being of partners in households (Burgoyne, 1990; Pahl, 1995; Vogler & Pahl, 1994).

In this study, we describe household financial decision making and financial management models from different disciplines, and empirically investigate the impact of joint versus separate financial management styles of couples on the occurrence of financial problems.

Because of technological progress, among other factors, leading to an increasingly complex consumer environment and high speed of change, more knowledge and capabilities are required from partners in households to make optimal choices (Jappelli, 2010). Currently, the knowledge gap is increasing, especially in the consumer financial area (Willis, 2008). Braunstein and Welch (2002) mention several reasons for this. With the development of new technologies, such as the Internet, the amount of financial information available to households increased considerably. Good financial knowledge, or financial literacy, and capability to use this information and subsequent sound decision making differ largely between households (Jappelli, 2010) and are very important for household financial management and financial well-being.

Apart from technological progress, the quality of household financial decision making is important because government support in household financial affairs is reducing rapidly, leaving it to households themselves (thus assuming high levels of self-reliance and resilience), or to market agencies to fill the gap. Examples where the quality of decisions is highly dependent on the self-reliance of citizens, are privatization of health insurance and medical care provision, increased use of digital communication channels by government, digital payment systems, infrastructure (e.g., telecommunication), energy provision, and retirement funds. In all those cases, households must choose between alternative providers and contracts, often without much help from others. At the same time, household members are more and more treated as individuals in tax affairs, social benefits, and legal contracts, thus complicating family financial affairs further. Moreover, female labor market participation has increased, thus increasing the bargaining power of women in households. In such an environment, bargaining between household partners is becoming more common, and differences in the partners' bargaining power may lead to unbalanced or non-optimal financial outcomes for the household.

Recognizing the need for high-quality decision making of households, we have conducted a survey on financial management styles of couples. We study the socioeconomic background of couples employing different financial management styles, and the differences in financial outcomes, such as the occurrence of financial problems.

The results of this study are relevant for banks to advise customers on their bank and savings accounts, for debt policy advisers to assist households in their financial management, and for consumers in general to improve their money management. Financial management of couples is an important determinant for avoiding financial problems and improving financial well-being and probably relational and overall well-being as well.

2. Models of household decision making

2.1. Microeconomic models

In microeconomics, different models have been used to capture household decision-making: unitary models, bargaining models, and collective models (Himmelweit, Santos, Sevilla, & Sofer, 2013; Antonides & Van Klaveren, 2018). Unitary models assume only one single household utility function, without specifying individual preferences, and assuming that the provision of goods and time is based only on the pooled household members' incomes. There are different types of unitary models. In Samuelson (1956) consensus model, the partners agree on spending and saving, such that one social utility function is sufficient to describe their behavior. The consensus model does not capture bargaining and conflicts between partners, arising from the realization of personal rather than household goals. In Becker (1981) microeconomic model, the husband is the decision maker of the household taking his wife's preferences into account. The husband's utility function thus includes his wife's preferences and serves as the household utility function. Unitary models assume income pooling, which is commonly arranged by setting up a joint bank account with full access by both partners.

However, couples often do not pool their incomes completely (Lundberg, Pollak, & Wales, 1997; Pahl, 2000; Burgoyne, Reibstein, Edmunds, & Dolman, 2007). Factors affecting income pooling are transaction costs (Treas, 1993), being married (vs. cohabiting), income, age, and the presence of children (Lyngstad, Noack, & Tufte, 2011). Income pooling is, for instance, more common for households with married partners, partners with more-or-less equal income, and households with children. Income pooling also assumes that it does not matter which expenses are paid from the husband's income or from the wife's income. However, Lundberg et al. (1997) showed that a policy change in the UK, transferring receiving child allowance from the father to the mother, caused larger expenditures on women's and children's clothing relative to men's clothing.

Likewise, microcredit given to women in developing countries is often better spent on the education of children or on investment in earning income capacity than given to men in a household (Fofana, Antonides, Niehof, & Van Ophem, 2015). Thus, the unitary model does not provide a realistic and up-to-date view on intra-household dynamics, male and female functions in households, household decision making, and money management of partners.

In contrast with unitary models, bargaining models of household financial decision making are based on the individual utility functions of decision makers: partners, older children, and other persons in the household (Manser & Brown, 1980; McElroy & Horney, 1981). In cooperative bargaining models, the individual utility obtained within the household may be compared with the individual utility that might be obtained by each partner in case he or she would live outside the household (the so-called fallback position or threat point), for instance, in case of a divorce. The difference in one's utility (living outside vs. living within the household) is considered the opportunity cost of staying within the household. In cooperative bargaining models, household

members negotiate to reach an agreement regarding household financial decisions. Since wage earners can usually obtain relatively favorable outcomes outside the household, they may have more power and influence on the decision of how to spend the money. In addition to wealth position, financial knowledge, capability and experience are factors contributing to the power of partners in bargaining and household financial decision making. Alternatively, outcomes may be achieved by non-cooperative decision making, in which the partners decide on their own but still enjoy sharing the household public goods (Lundberg & Pollak, 1993; Himmelweit et al., 2013).

In the *collective model* of household decision making, the weighted sum of individual utility functions is maximized. In this case, the weight given to each individual utility function is based on the bargaining power of the partners in the household (Chiappori, 1988, 1992; Apps & Rees, 1997) such that higher bargaining power may result in higher utility. Bargaining and collective models of household decision making do not assume income pooling, as in the unitary model. Yet, even in these models, income pooling may be applied to decrease transaction costs (Treas, 1993).

In the second part of the 20th century, family structures and labor divisions have changed considerably, due to modernization and individualization, resulting in more individual freedom and less traditional role patterns of household partners (Beck-Gernsheim, 2007). Differences between generations, social classes, income levels, and household division of labor may affect household financial management practices (Kenney, 2006). This change in household processes is reflected in the development of household economic models, increasingly focusing on bargaining, and raising the issue of power in decision making. These two developments are examples of why traditional role patterns, such as the husband as the main wage earner, are disappearing.

In this study, we do not particularly favor one of the microeconomic models. Rather, we adopt the idea that different households make financial decisions differently. Some couples make decisions jointly, whereas others bargain over issues and exercise power to reach advantageous outcomes. This idea leads to a segmentation of households with respect to the type of decision making and financial management style. We construct and study different household models in relation to financial household decisions, taken jointly or separately, and their financial outcomes, the absence or presence of financial problems regarding issues such as making ends meet and paying bills on time.

In addition to restrictions of time and money, microeconomic models of the household may specify the factors in exercising power in decision making. For example, Ott (1995) found positive effects of the wife's education and income on her power in the marriage. Also, a partner's wage rate has been found to influence engagement in financial decision making and management (Dobbelsteen & Kooreman, 1997; Antonides, 2011). Institutional factors, such as marriage contracts and settlements, divorce law, and alimony regulations may further influence decision power (Himmelweit et al., 2013). Even with income pooling, inequality in decision power may exist, for example, because non-earning women may feel uncomfortable spending money they did not earn themselves (Kenney, 2006). Microeconomic models usually do not describe the processes of decision making, which is the domain of psychology, sociology, and marketing, to be discussed next.

2.2. Psychological, sociological, and marketing models of household decision making

In most cultures, gender inequality exists in household work, income, and power. Women generally do more household work than men and tend to decrease their household work as their earnings increase. However, even if spouses contribute equally to the household income, women still do more household work than men (Bittman, England, Sayer, Folbre, & Matheson, 2003; Hook, 2010). Partners earning a larger part of the total household income usually have more influence on how the income should be spent. Mader and Schneebaum (2013) find that, across Europe, women often make decisions about everyday household spending and purchases for themselves and the children, whereas men make most complex financial decisions in a household such as concerning the tax declaration and the purchase of durable goods and financial products such as mortgages and pension plans. In general, this means that men have so-called "orchestration power" (Safilios-Rothschild, 1976; Webster, 1998), whereas women have "implementation power." Greater equality of income and education between partners is generally related to more joint decision making on spending and saving.

Another issue in intra-household dynamics is the power of partners and its impact on negotiation, bargaining and exchange processes. Power depends on (1) cultural definitions of who has the authority in the household, (2) degree of (in-)dependence of partners, for instance their personal income and financial contribution to the household, (3) role competence and skills, including bargaining skills, (4) (financial) knowledge and cognitive competence, and (5) personality, emotional resources, level of commitment to the relationship, and attractiveness (Critelli & Waid, 1980; Kim, Visserman, & Impett, Chapter 9, 2019; Simpson & Willer, 2015). The non-earning partner often has less power and less "say" in the decision of how to spend the household money. Burgoyne (1990) concludes that women, after an interruption of childbearing and nurturing, have a disadvantage of earning less income on the labor market and thus less influence on household financial decisions.

McDonald (1980) emphasizes commitment, trust, and reciprocity in exchange and negotiation processes between partners. Exchange theory does not only concern competitive, but also cooperative aspects of interaction and equity between partners. Note that negotiation is not a "one-shot" bargaining but an ongoing process in households over an extended period of time (Scanzoni & Polonko, 1980) with outcomes that may alternate, but balancing the favors of each household partner in the long run. Research findings on conflict and bargaining strategies of household partners are reported in Kirchler, Rodler, Hölzl, and Meier (2001).

Kamleitner, Mengay, and Kirchler (2017) state that, despite the increasing financial independence of women, most financial decisions tend to be made jointly. The only exception appears to be spending decisions on everyday goods and services, often made individually. In marketing, the emphasis is usually on individual decision making and choice, overlooking the fact that most major financial decisions of couples are made together.

2.3. Financial management styles

Ferber and Lee (1974) coined the concept of the “family financial officer” (FFO). The FFO is the partner who takes the major financial decisions concerning, for example, the mortgage, tax declaration, and the purchase of expensive household items, such as the car and living room furniture.

Pahl (1995) and Vogler (2005) assessed in their surveys four household financial management styles in the U.K.: (1) joint pool of income and joint decision making, (2) female whole wage and pocket money for her husband, (3) male whole wage and housekeeping allowance for his wife, and (4) independent/autonomous money management of both partners. The respondents were asked which of these four financial management styles best described the way they were managing their money. “Female whole wage” means that the wife is the family financial officer (FFO; Ferber & Lee, 1974), probably giving pocket money to her husband. “Male whole wage” means that the husband is the FFO, probably giving a housekeeping allowance to his wife. Heimdal and Houseknecht (2003), using the International Social Survey Programme, also employed the procedure of respondents choosing which financial management style best describes their situation.

Kenney (2006) asked couples in the US about both keeping money separately or jointly, and who controlled the money in the household, then used the answers to create Pahl’s typology. 26% Of couples used a jointly controlled pool, 21% a female-controlled pool, 11% male-controlled pool, 15% independent management with equal control, 21% female-controlled separate management, and 7% male-controlled separate management. Lyngstad et al. (2011) also asked household partners whether they had a joint bank account or not, and whether the partners consulted each other before making a large purchase. Treas (1993) focused exclusively on households having joint and separate accounts, showing that 64.0% of couples in the US have a joint account only, 17.6% have both joint and separate accounts, and 18.0% have separate accounts only. Huang, Perales, and Western (2019) also focused exclusively on joint and separate accounts, showing that, in 2014, 29% of couples in Australia had only a joint account, in 48% of couples each partner had a separate account (either or not in addition to a joint account), in 15% of couples only women had a separate account, and in 8% of couples only men had a separate account.

Davis and Rigaux (1974) asked their sample of Belgian respondents to indicate their partner’s influence on decisions in specific domains of spending. Three stages of decision making were distinguished: problem recognition, search for information, and the decision to purchase a good or service. The purchasing decisions may be female-dominant (children’s clothing, woman’s clothing, food, cleaning products, kitchenware, cosmetics), male-dominant (insurance, car), syncratic/joint (school, vacation, housing, outside entertainment, living room furniture, children’s toys), and autonomous (both partners for themselves) (man’s clothing, alcoholic beverages, garden tools, non-prescription drugs).

In Davis and Rigaux (1974) study, most decisions (52%) were taken together (syncratic), 20% of decisions were taken autonomously, 20% of decisions were female-dominant, and 8% of decisions were male-dominant. Bonfield (1978), in a study done in the US, found somewhat different proportions of the four groups: 35% female-dominant; 30% syncratic; 20% male-dominant; and 15% autonomous. These differences largely depend on the products and services included in these studies.

To some extent, the four decision types are related to the microeconomic household models, discussed in Section 2.1. Syncratic decision making seems to fit the unitary model, based on consensus. The male-dominant model fits Becker (1981) model best, as does the female-dominant model with male and female roles reversed. Autonomous decision making comes closest to the cooperative bargaining model.

Note that these studies have been done in different time periods and in different “western” countries. No studies on financial management of partners in households are found in non-western and developing countries with lower levels of financial inclusion, i.e., having bank and saving accounts and using financial products such as credit and insurance. Muehlbacher, Hofmann, Kirchler, and Roland-Lévy (2009) hypothesized that gender roles have changed during the last decades. Younger couples are expected to make their decisions more syncratically and/or autonomously and less male/female-dominant than older couples. However, contrary to their expectations, Muehlbacher et al. (2009) did not find changes in gender roles due to age for major purchases such as cars, computers, holidays, and living-room furniture.

Besides household financial management being characterized by the above-mentioned decision-making styles, financial management includes a number of activities such as information seeking on financial and other products and services (Davis & Rigaux, 1974), setting life goals and financial goals for the household, employing mental budgeting (Antonides, De Groot, & Van Raaij, 2011), making spending and saving plans, taking credit, and reaching agreement on financial decisions. If partners in a household do these activities well, it is expected that these persons/couples will have fewer financial problems and thus higher financial well-being than persons/couples not performing these activities (Van Raaij, 2016).

3. Method

In this section, we describe the procedure of sampling from a household panel, and the way respondents were invited to participate in the study, and to fill out the questionnaire. The sample included both married and cohabiting partners, as advised in Heimdal and Houseknecht (2003) and Lyngstad et al. (2011), couples with partners of different and same gender, and couples with and without children.¹

¹ To access the dataset, see Van Raaij, Antonides, and De Groot (2020).

3.1. Sample and procedure

A total of 21,750 members of the consumer panel of a market research agency in The Netherlands were invited to participate in the study. These panel members were selected as members of households with two partners of 18 years or older, with or without children living at home. 7012 Persons reacted to the invitation and received the questionnaire, and 4900 persons completed the questionnaire. These persons were then asked to request their partners to participate, and 1205 partners completed the questionnaire as well. Asking partners of respondents afterwards was done to increase the independence of observations. Partners of panel members were also 18 years or older. Some questionnaires were not completely filled out, filled out as “straightliners” (giving the same scale answer to all or most questions) or partners simply copied the responses of the first participant. These questionnaires were eliminated from the study. A net total of 1116 households remained of which both partners completed the questionnaire independently. The data were collected online in The Netherlands in January 2017.

3.2. Questionnaire

The questionnaire consisted of three blocks of questions. In the first block were descriptors of the households and the partners in a household, including household/family size, family arrangement (marriage, cohabitation), presence and number of children, and the presence of joint or separate bank and savings accounts. Individual information includes gender, age, level of education, and financial knowledge (five knowledge quiz questions on compound interest, inflation, time discounting, and money illusion) of both partners in households.

The second block of the questionnaire consisted of questions on financial behavior, including quality of decision making and financial management, information seeking, having life goals and financial goals, employing mental budgeting, spending and saving plans, and agreement with the partner on financial decisions. Since the focus of our study is on financial management styles, their determinants and financial outcomes, these variables were not used in the current research. Other variables included in the research concerned sharing/pooling of personal income, having a higher income than one's partner, and perceived knowledge to make important financial decisions.

The third block consisted of questions on financial outcomes, including monthly savings and total debts (euros). Furthermore, this block included questions on having an overview of expenses, including those made by one's partner, on difficulty of making ends meet, on comparing prices before making an important purchase, and on the last time a financial problem had occurred. These financial problems were: not paying a personal or household bill in time, not having enough money on the joint or personal account, and not paying off loans/credit.

3.3. Analyses

The first block of variables served as background factors explaining the household decision-making and financial management styles (second block of variables). The variables of the third block were mainly dependent variables to be explained by the independent variables of the first and second block.

Although income was asked in brackets, we computed mathematical expectations of the income brackets assuming a lognormal distribution of income over the brackets, separately for the two partners in the household (Aitchison & Brown, 1960; Antonides, pp. 160–162, 1990), resulting in household income point estimates. Saving and credit information were also reported in brackets, and we converted this data into point estimates by using the bracket mid-points (and 1.5 times the highest bracket value if the amount exceeded this value).

We used the multidimensional scaling technique PRINCALS (Gifi, 1985) to analyze the data concerning the last time five different financial problems had occurred (last week, last month, last year, more than a year ago, or never), in order to cluster and summarize this data in a meaningful way. The technique can be considered an extension of principal component analysis (PCA). Where PCA handles numerical variables only, PRINCALS also handles ordinal and nominal variables. Since there were five financial problems presented to each household with two responses per household, the PRINCALS analysis was run with ten variables. All ten variables were treated as ordinal variables. The scaling procedure resulted in interval-type measures (quantifications) for each period associated with the occurrence of each financial problem, which were then averaged over the five problems and the two partners. The result of the scaling procedure was a one-dimension solution with a total fit of 0.561, which indicates that this dimension explained 56.1% of the variance in the respondents' answers.

The collected data were re-organized in such a way that the unit of analyses were households rather than individuals. Each household record included the responses of the panel member and his/her partner. The male partner was named partner 1, and the female partner 2. Forty households consisted of same-gender partners. The partner who was originally in the research agency panel, was named partner 1; the other partner 2.

Based on information on the presence of bank accounts, households were segmented into types with joint and/or separate bank accounts, and separate for those who reported syncratic, male-dominant, female-dominant, or autonomous financial decision making. Note that this approach differs from Vogler and Pahl's approach (1994). They did not formulate financial management styles beforehand but had people indicate which style applied most to them. In this study, we developed different groups/segments based on partners' reports of having joint or separate bank accounts and reported management of the joint accounts.

Table 1

Distribution of answers on the question: Who decides on expenses made from the joint account (percentages)?

Male response	Female response		
	I always/usually decide	Decide jointly/together	Partner always/usually decides
I always/usually decide	0.3	3.0	1.4
Decide jointly/together	6.4	77.9	2.1
Partner always/usually decides	5.6	3.4	0.0

4. Results

4.1. Household types

Fifty percent of the households in the sample had a joint bank account only and neither partners reported a separate bank account, which can be considered as total pooling or sharing of income. Another 37.8% of the households had a joint account with at least one partner reporting a separate bank account. This is called “partial pooling” of income (Burgoyne et al., 2007). Further, 10.4% had only separate bank accounts and 1.8% had neither a joint account, nor separate accounts, probably consisting of households who did not manage their finances themselves. The latter group was omitted from further analyses.

In 912 households, both partners answered the question about who makes decisions about the joint bank account. Decision making concerning the joint bank account was assessed by converting the individual answers into three categories: “I always/usually decide myself,” “We decide jointly/together,” and “My partner always/usually decides” (see Table 1). Note that inconsistencies arise if both partners report to decide themselves, or if both partners report that the other partner makes the decisions. Here, such inconsistencies amounted, respectively, to $0.3 + 0.0 = 0.3\%$ only, and these households were omitted from further analyses. True consistency was achieved if one partner reported to decide him/herself and the other partner reports his/her partner to decide, or both partners reported syncratic decision making, which was the case for, respectively, $1.4 + 5.6 + 77.9 = 84.9\%$. The remaining responses may be called partially consistent (14.8%). Combining both the consistent and partially consistent responses, we arrived at the following household financial management categories. The above-diagonal cells of Table 1 ($3.0 + 1.4 + 2.1 = 6.5\%$) indicate male dominance; the below-diagonal cells of Table 1 ($6.4 + 5.6 + 3.4 = 15.4\%$) female dominance. Note that the occurrence of female dominance is more than twice as large as male dominance.

From Table 1, we assessed three financial management styles: syncratic, male-dominant, and female-dominant. If there was no joint bank account, both partners were assumed to decide for themselves, denoted as independent or autonomous financial management, this being the fourth financial management style. Note that autonomous financial management does not exclude that partners decide together on how much each partner contributes to joint expenses such as expenditure for the children, home, and holiday trip (Kamleitner et al., 2017).

A total of 78% of the households agreed that they always or usually took economic decisions together. This modal category contains 711 observations. Only $5.6 + 1.4 = 7\%$ ($n = 64$) agreed that one of the partners always or usually made the decision. Although the total sample is large, note that the non-modal categories are based on relatively small subsamples and must be treated with caution.

In Table 2, based on 1025 households, seven segments are distinguished, based on reported joint and separate bank accounts, and on household financial management style regarding the joint account. The syncratic financial management style is prevailing with 77.9% of all households and 11.3% ($n = 116$) of the households employ the autonomous financial management style, having separate accounts only. The segments of male-dominant and female-dominant financial management are relatively small: 5.7% ($n = 59$) and 4.9% ($n = 50$), respectively. Since financial management style was relatively independent from having separate accounts, both household type indicators were dealt with separately in our analyses. Next, we relate socio-economic variables to household financial management styles and to having separate bank accounts. We found similar household types as Davis and Rigaux (1974), Pahl (1995) and Vogler (2005), although we obtained a higher proportion of the syncratic financial management style.

4.2. Determinants of household financial management style

In The Netherlands, same-gender couples can marry, have children, and usually arrange their finances in the same way as

Table 2

Household financial management style by bank account type (percentages).

Household financial management style	Only a joint bank account	At least one separate bank account	Total
Syncratic	46.1	31.8	77.9
Male-dominant	2.7	3.0	5.7
Female-dominant	2.9	2.0	4.9
Autonomous (no joint account)	n.a.	11.3	11.3
Total	51.7	48.1	100.0

Table 3

Sample statistics of household background variables of both partners (percentages) (standard errors in brackets).

	Partner 1	Partner 2
Partnership arrangement		
Married in community of property	73.5	72.9
Marriage settlement, registered partnership, cohabitation with contract	19.2	19.9
Cohabitation without contract or registration, or unknown arrangement	7.3	7.2
Partner him/herself has no income	1.6	20.1
Relative income of partner 1 (5-point scale)	3.92 (0.04)	3.93 (0.04)
Sharing personal income (5-point scale)	4.48 (0.03)	4.21 (0.04)
Knowledge of both self and partner to take important financial decisions (4-point scale)	3.14 (0.02)	3.15 (0.02)
Actual financial knowledge (5-point scale)	3.81 (0.04)	3.63 (0.04)
Age (years)	53.28 (0.33)	50.55 (0.32)
Total monthly net household income (euro)	2985 (38)	2947 (40)
Highest completed education level of partner 1*		
No education, basic education	4.0	n.a.
Medium professional education	50.5	n.a.
Higher general, higher professional education	45.4	n.a.

* Education level obtained from research agency, not from questionnaire.

different-gender couples. In our sample, neither the distribution of household type, nor holding separate bank accounts were much different between same-gender and different-gender couples, although same-gender couples had less other household members and were more often living together on a contract arrangement rather than marriage. Because we took these background variables into account, we included both same-gender and different-gender couples in the following analyses.

In Table 3, sample statistics of household background variables are shown. In most households, partners reported being married in “community of property” (common ownership of household property), followed by “marriage settlement” (separate ownership of household property), registered partnership, cohabitation with or without a formal arrangement/contract. Unfortunately, we did not find population statistics on marriage arrangements in 2016–2017. Partners’ responses show great consensus. Partner 2 more often than partner 1 reported having no income, which confirms the Dutch situation in which women, mostly partner 2 in this survey, relatively often take full-time care of the children. In The Netherlands, in single-earner households, the income earner is often the husband. In double-earner households, the husband has a full-time job more often than his wife (Roes, 2008, Table 1.2, p. 18). Partners seem to agree that partner 1 had a higher income than partner 2, although partner 1 slightly more often reported sharing income by transferring money to the joint account or spending on shared expenses such as food and children’s clothing. Both partners seem to agree on having enough knowledge to take important financial decisions. Their actual knowledge, according to the 5-item financial literacy scale, was quite high, and somewhat higher for partner 1 than for partner 2. The average age was in the low fifties, with partner 1 a little older than partner 2. This reflects that in The Netherlands, husbands in their first marriage/cohabitation are on average 2.5 years older than the wife in her first marriage/cohabitation (Smeenk, 1998). Total monthly net household income was almost € 3000 on average. Half of the partners 1 had a medium level of professional education, whereas 45% had completed a higher education.

In Table 4, the results of a multinomial logit regression analysis of financial management styles are shown, with the syncratic financial management style as default. The probability of belonging to the male-dominant money-management style, as compared with the syncratic financial management style, was negatively related to income sharing only ($B = -0.505$); the other variables did not affect this probability. Thus, sharing one’s income decreased the likelihood of belonging to the male-dominant financial management style, relative to the syncratic financial management style. The value under Exp (B) is the odds ratio for the predictor variable. An odds ratio > 1 indicates that belonging to the comparison group is more likely with one unit increase of the predictor variable. An odds ratio < 1 indicates that the default or referent group is more likely with one unit increase of the predictor variable. The coefficient of 0.60 for income sharing in male dominant household types indicates that the probability of belonging to the male-dominant style (relative to the syncratic style) would diminish by 40% with each additional point on the 5-point scale for reported income sharing. Put differently, income sharing makes it more likely to belong to the syncratic rather than to the male-dominant financial management style. Although the same-gender dummy was significant, male dominance in this case means that partner 1, the one being a member of the marketing research panel, was most dominant.

The probability of belonging to the female-dominant financial management style was negatively related only to the objective knowledge difference between partner 1 and partner 2 ($B = -0.309$). This means that if the female partner possessed more knowledge than her partner, it was more likely that the household belonged to the female-dominant rather than to the syncratic financial management style.

The probability of belonging to the autonomous money-management style was positively related to a cohabiting living arrangement without a contract or registration (as compared with marriage in community of property) ($B = 2.224$), differences in age ($B = 0.071$), and objective knowledge difference between partner 1 and partner 2 ($B = 0.230$), and negatively related to income sharing ($B = -0.768$). Households without a contract arrangement were nine times more likely to have an autonomous financial management style than those who were married, as shown by the coefficient Exp (B) = 9.247. This means that if partners had no partnership arrangement (rather than marriage in community of property), differed in age, differed in their financial knowledge,

Table 4

Results of multinomial regression analyses. Estimated effects of variables on belonging to a particular financial management style, with the syncratic style as default.

	Male-dominant			Female-dominant			Autonomous		
	B	SE	Exp (B)	B	SE	Exp (B)	B	SE	Exp (B)
Intercept	−0.546	1.915		−1.036	2.215		1.838	1.491	
Family size	0.174	0.142	1.190	−0.125	0.170	0.883	0.165	0.121	1.179
Partnership arrangement ¹	−0.191	0.370	0.826	0.069	0.389	1.071	0.377	0.286	1.458
No partnership arrangement ¹	−0.338	0.790	0.713	−0.181	0.794	0.835	2.224	0.350***	9.247
Same-gender household	1.597	0.488	4.937***	n.a.	n.a.	n.a.	0.505	0.559	1.657
Age	−0.003	0.016	0.997	−0.012	0.017	0.988	−0.007	0.012	0.993
Age difference	−0.013	0.029	0.987	0.043	0.031	1.044	0.071	0.021**	1.073
Missing income	0.628	0.600	1.874	−0.377	0.682	0.686	−0.977	0.557	0.377
Net household income	0.147	0.140	1.158	0.038	0.151	1.039	−0.161	0.118	0.852
Partner 2 no income	−0.141	0.861	0.868	−0.010	0.920	0.990	−1.822	0.646	0.162
Relative income partner 1	−0.750	0.573	0.472	−0.034	0.615	0.966	−0.888	0.396*	0.412
Relative income partner 1 squared	0.147	0.091	1.158	−0.014	0.097	0.922	0.138	0.064*	1.148
Income sharing	−0.505	0.128***	0.604	−0.013	0.182	0.978	−0.768	0.102***	0.464
Perceived knowledge	−0.223	0.306	0.800	−0.304	0.336	0.820	0.238	0.258	1.268
Knowledge partner 1	0.135	0.144	1.144	−0.145	0.136	0.865	−0.104	0.107	0.901
Knowledge difference	0.129	0.128	1.138	−0.309	0.152*	0.734	0.230	0.099*	1.258
Intermediate education partner 1	−0.247	0.787	0.781	1.025	1.069	2.787	−0.159	0.609	0.853
High education partner 1 ²	−0.164	0.406	0.849	0.437	0.551	1.549	−0.052	0.315	0.949

Nagelkerke $R^2 = 0.272$; * $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$.

¹ Default is “married partners”; ² Default is “low education”.

and/or did not pool their income, it was more likely that the household belonged to the autonomous rather than to the syncratic financial management style.

In Table 5, the results of a binary logit regression analysis of having separate vs. joint bank accounts in the household are shown. It appears that having a marriage or cohabitation contract, as compared with marriage in community of property ($B = 0.958$), and having a large family ($B = 0.022$) increased the probability of having separate bank accounts, whereas income sharing ($B = -1.154$), and perceived knowledge of the partners ($B = -0.340$) decreased the probability of having separate bank accounts. Said differently, the probability of a joint bank account is larger, if partners are married, have a small family, pooled income, and/or financial knowledge of the partners is large.

4.3. Financial outcomes of household financial management styles and bank account types

Next, we conducted an analysis of variance (ANOVA) for a number of financial household outcomes with household financial management style (male dominant vs. female dominant vs. autonomous vs. syncratic) and bank account type (no separate bank

Table 5

Estimated effects of variables on having a separate bank account (having only a joint account is the default).

	B	SE	Exp (B)
Intercept	6.378	1.111***	588.604
Family size	0.022	0.084***	1.022
Partnership arrangement ¹	0.958	0.202***	2.606
No partnership arrangement ¹	2.351	0.449	10.500
Same-gender household	0.600	0.397	1.823
Age	−0.001	0.009	0.999
Age difference	0.014	0.015	1.014
Missing income	−0.138	0.333	0.871
Net household income	0.054	0.077	1.056
Partner 2 no income	−0.958	0.463	0.384
Relative income partner 1	−0.459	0.302	0.632
Relative income partner 1 squared	0.080	0.048	1.083
Income sharing	−1.154	0.109***	0.315
Perceived knowledge	−0.340	0.167*	0.712
Knowledge partner 1	0.039	0.074	1.039
Knowledge difference	0.048	0.071	1.049
Intermediate education partner 1 ²	−0.473	0.391	0.623
High education partner 1 ²	−0.077	0.203	0.926

Nagelkerke $R^2 = 0.372$; * $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$.

¹ Default type is “married partners”; ² Default is “low education”.

Table 6

ANOVA results: household financial outcomes for household financial management style and bank account type (standard errors between brackets).

	Male- dominant	Female- dominant	Autono-mous	Syncratic	No separate bank accounts	Separate bank accounts
Monthly savings by male (€)	372 (45)	297 (58)	289 (35)	303 (13)	321 (34)	317 (28)
Monthly savings by female (€)	246 (46)	319 (44)	187 ^a (31)	274 ^b (12)	297 (31)	244 (24)
Household debts ¹ × 1,000 (€)	111 (16)	89 (17)	84 (11)	96 (4)	85 (11)	106 (9)
Household debts ² × 1,000 (€)	101 (17)	94 (18)	83 (12)	98 (5)	83 (11)	105 (10)
Difficulty of household making ends meet ¹	2.05 (0.16)	2.30 ^a (0.17)	1.99 (0.11)	1.81 ^b (0.04)	1.94 (0.11)	2.12 (0.09)
Difficulty of household making ends meet ²	2.10 (0.16)	2.41 ^a (0.17)	2.03 (0.11)	1.84 ^b (0.04)	2.00 (0.11)	2.18 (0.09)
Comparing prices by male ¹	4.05 ^a (0.16)	3.12 ^b (0.17)	3.89 ^a (0.11)	3.88 ^a (0.04)	3.71 (0.11)	3.72 (0.09)
Comparing prices by female ²	3.85 (0.15)	4.25 (0.16)	3.90 (0.11)	4.14 (0.04)	4.17 (0.10)	3.97 (0.09)
Overview of expenses by male ¹	4.17 ^{a, c} (0.16)	2.27 ^b (0.18)	3.78 ^a (0.12)	3.69 ^{a, d} (0.05)	3.53 (0.11)	3.36 (0.09)
Overview of expenses by female ²	3.16 ^a (0.16)	4.13 ^b (0.17)	3.31 ^a (0.11)	3.90 ^b (0.04)	3.85 ^x (0.11)	3.54 ^y (0.09)
Last time household had problems	−0.42 ^a (0.13)	−0.28 (0.14)	−0.06 (0.09)	0.04 ^a (0.04)	0.08 ^x (0.09)	−0.41 ^y (0.07)

Note: ¹ Reported by partner 1; ² reported by partner 2; different superscripts (a,b,c,d for financial management style; x, y for bank account type) indicate significant differences (row wise) between categories ($p < 0.05$).

accounts vs. separate bank accounts) as fixed factors. The financial household outcomes included savings, debts, making ends meet, having an overview of expenses, making price comparisons, and how long ago several financial problems had occurred. The latter variable was constructed by multidimensional scaling (PRINCALS) of the five relevant variables for each partner. Table 6 summarizes the results.

Reported savings were very similar across financial management styles and bank account types. Only savings reported by partner 2 (mostly females) in households with syncratic financial management were higher (€ 274) than those reported for households with autonomous financial management (€ 187). Total reported household debts were not significantly different across financial management styles. Difficulty of making ends meet was significantly higher in female-dominant than in syncratic financial management styles, as reported by both partner 1 and partner 2. This could indicate that women did less well as financial managers, or that women are put in charge of finances when things are going awry (Ryan & Haslam, 2005). This result cannot be explained by a lower income of female-dominant households, as shown by the insignificant differences in income across financial management styles (Table 4).

Partner 1 of female-dominant financial management style reported making less price comparisons than partner 1 of the other financial management styles. For partner 2, there were no such differences. Also, partner 1 of female-dominant financial management style reported having much less overview of expenses than partner 1 of the other financial management styles, whereas partner 2 in female-dominant financial management style reported having a much better overview. These results may be partly due to role division in these households. Finally, partners of male-dominant financial management style and those with separate bank accounts reported a significantly shorter period since financial problems had last occurred than partners of the other financial management styles, indicating that financial problems were more frequent for male-dominant financial management and in households with separate bank accounts.

We found one significant interaction effect of financial management styles and bank account type (not reported in Table 6). The overview of expenses of partner 2 in male-dominant financial management style was higher with separate bank accounts than with joint accounts, whereas the overview of expenses of partner 2 in female-dominant financial management style was higher with joint accounts than with separate bank accounts.

5. Conclusions, recommendations, and limitations

There is a clear historical trend in the literature from male/husband-dominant (Becker, 1981; Ferber & Lee, 1974) financial management of households in the 1980s to syncratic/joint money management, financial decision making, and partial or full pooling/sharing of income between partners nowadays. This trend seems to be reflected in the large prevalence of joint decision making in our study in The Netherlands.

We found that partners of households with a joint bank account are likely to be married, have small families, pool their income, and have, relatively, a lot of financial knowledge/high levels of financial literacy. The results are in line with the usual pattern that early-relationship partners bring their separate bank and savings accounts into their marriage or cohabitation, and then open joint bank and savings accounts for joint savings and expenses, such as buying a house, home improvement, expenses on children, and holiday trips. This is a case of partial pooling (Burgoyne et al., 2007). Kan and Laurie (2013) also found that married partners are more likely to hold joint savings, investments, and debts than cohabiting partners.

Household differentiation with respect to syncratic, male- or female dominance, and autonomous decision-making and financial management styles offers valuable insights. The syncratic financial management style is prevalent among 77.9% of Dutch households. If partners do not pool their income, it is likely that these households employ a male-dominant financial management style. However, if the female partner has more financial knowledge than her partner, it is likely that the household employs a female-dominant financial management style. If partners have no partnership arrangement, differ in age and/or in financial knowledge, and/or do not

pool their income, it is likely that these households employ an autonomous financial management style. A tentative conclusion might be that similar characteristics of partners make joint decision making more likely than dissimilar characteristics of partners. Antonides et al. (2011) also found that husbands who are spending money more freely, are less likely to be involved in household investment decision making and paying bills.

Partners not only bring their bank and savings accounts into their marriage or cohabitation, they also bring in their financial literacy. With a longer duration of the relationship, it is likely that the financially more knowledgeable partner will do the financial management and has more “say” in the major financial decisions of the household. This means that with a longer duration of the relationship and more division of labor, the role of the family financial officer (FFO) will become more apparent. However, like Muehlbacher et al. (2009), we did not find an age effect in this study. The household financial management styles of younger couples did not significantly differ from older couples. It is not clear to what extent this result reflects a non-existing effect of role specialization or ageing, a non-existing generation (cohort) effect, or both.

We found that syncratic and autonomous money-management styles tend to result in less financial problems than male-dominant and female-dominant financial management. If one person in the household is dominant in financial management (the family financial officer, FFO), it is likely that his or her partner is less involved and less satisfied with the household financial decisions and outcomes. With a syncratic money-management style, it is likely that partners discuss purchases and expenses beforehand, control each other, avoid impulsivity, correct mistakes, and thus seem to avoid financial problems more. Barber and Odean (2001) found that overconfidence in stock investment decision making, as reflected in excessive trade and lower returns, is higher for men than for women. However, the difference is smaller for married partners than for single individuals, suggesting beneficial effects of joint financial management. Joint decision making, self-control and partner control seem to be the ingredients for avoiding financial problems.

The avoidance of financial problems is likely to be a strong determinant of financial satisfaction, welfare, and well-being of partners. Two components may be distinguished in financial well-being: current money-management stress and expected future financial security (Netemeyer, Warmath, Fernandes, & Lynch, 2018). However, Kan and Laurie (2013) did not find differences in well-being of spouses between those who hold joint investments and those who hold separate investments. In future studies, the relationships between financial problems and these components of well-being should be investigated further.

We did not have historical information about whether partners had had earlier long-term relationships, previous marriages, and, in particular, whether there were children in the household from earlier relationships. These conditions are known to influence the tendency to keep finances separate (Burgoyne & Morison, 1997). For example, Huang et al. (2019) report that remarried/re-partnered households have joint accounts less often and separate bank accounts more often than couples in their first marriage or relationship. Households with blended families are becoming more common, due to divorce and changing household life cycles (Du & Kamakura, 2006; Kumar, 2017). Previous marriages may have played a role in the tendency of couples with large families to employ autonomous financial management (Table 5).

Limitations of this study are also related to sample size, and sampling from a “western” country. 50 Percent of households had only a joint bank account and 78% agreed that they took economic decisions together. The largest (modal) category is thus syncratic financial management. This leaves little room for non-modal categories such as male-dominant, female-dominant and autonomous financial management. The non-modal categories are relatively small, but sufficiently large for the conclusions drawn from the data analysis (Table 2). Our sample was taken from The Netherlands, and results cannot be generalized to “non-western” or to developing countries with different cultures and levels of economic development. We leave it for future research to compare household financial management in different cultures and levels of economic development.

Results of this study may be used by banks to segment and advise their customers, and for advice and policy on financial literacy, expenditure, debt and saving of consumers in households. For example, relationship partners who just have started cohabitation or marriage, may be offered a joint bank account for free (at least for some time), hopefully stimulating further joint financial decision making and prevention of financial problems in the future. In information extension to partners in households, joint bank and savings accounts and a syncratic financial management style may be recommended and promoted in order to stimulate joint financial decision making for avoiding and reducing future financial problems.

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